



CITY OF HOUSTON - CITY COUNCIL

Meeting Date:

Item Creation Date: 4/11/2017

20JLB04 North East Water Purification Plant Expansion

Agenda Item#:

Background:

Subject: Fifth Additional Appropriation to Professional Engineering Services Contract between the City and Carollo Engineers, Inc. for Project Advisor/Technical Consultant for the Northeast Water Purification Plant Expansion Project (NEWPP); WBS No. S-000065-0001-3.

Recommendation: An ordinance approving the Fifth Additional Appropriation to the Professional Engineering Services Contract between the City and Carollo Engineers, Inc. for the North East Water Purification Plant (NEWPP) Expansion Project and appropriate funds.

Project Notice/Justification: These services are to provide advisory and technical consulting assistance to the department in executing the City's expansion of the NEWPP. This project is required to meet regulatory mandates of the Texas Commission on Environmental Quality and the Harris-Galveston Subsidence District Surface Water Conservation Plan. Under the second supplement (s) between city and authorities, the city will be responsible for approximately 16% of the costs of NEWPP expansion and the Authorities will be responsible for the remainder. It is intended that the NEWPP expansion be completed in two phases. The first phase of 80 million gallons of water per day to be substantially complete no later than August 31, 2021 and the second phase of 240 million gallons of water per day to be substantially complete no later than June 30, 2024 for a total of 320 million gallons of water per day. This project was described and briefed to the Transportation, Technology, and Infrastructure committee meeting on February 13, 2017.

Description/Scope: The Project Advisor/Technical Consultant will support and augment the department in planning, coordination, execution and delivery of the North East Water Purification Plant Expansion Project. The work to be performed shall consist of the following general activities to assist and support the department and/or additional activities in concert with the overall purpose of the contract, as authorized by the Director:

- Provide raw water system related support in reference to project goals and regulatory compliance.
- Provide process support, technical support, and associated services as HWT (Design-Builder) progresses the Basis of Design to a level of design definition sufficient for execution of the Guaranteed Maximum Price (GMP).
- Perform design document review for conformance to permitting requirements (local, state and federal).
- Perform Texas Commission on Environmental Quality coordination and reporting.
- Perform operability, maintenance, constructability review and value engineering review of design documents.
- Provide administration, auditing (observation), field engineering with other associated services for acceptance of the construction facilities, for early work packages.
- Provide project administrative, permitting, communication and scheduling support.
- Conduct supporting and special studies as necessary to support project management decision-making.
- Provide monitoring and control services to assist in managing the scope, schedule, risk and change management.

Location: This project is located at 12121 North Sam Houston Parkway East, in Humble, Key Map Grids 376 Z & 377 W.

Project History and Scope: The Scope of services under the original contract was to support and augment the department in planning, coordination, execution and delivery of the Northeast Water Purification Plant expansion project. The First Amendment authorized additional services to perform a process evaluation, facility audit, facility re-rating evaluation, ultraviolet disinfection audit & validation, and interim expansion planning. The Second Amendment authorized legal and contracting support and development of project staffing and controls plans. The Third Additional Appropriation authorized pilot investigation, raw water planning and permitting, and development of Request for Qualification (RFQ) and Request for Proposal (RFP) for Design-Build procurement. The Fourth Additional Appropriation authorized services to support management and quality assurance of the Preliminary Services Component – 1 to develop the basis of design.

Under this contract the Project Advisor/Technical Consultant has accomplished the primary objectives of Work Orders 1 through 8 that consisted of: project framework development, treatment concept development, delivery alternative development, project approach alternative assessment, conceptual project schedule; technical support to the City to maintain operations at the Northeast Water Purification Plant following storm events in February and July of 2012; process evaluation, facility audit, facility re-rating evaluation, ultraviolet disinfection audit and validation, interim expansion planning; authority engagement; raw water cleaning and restoration evaluation; archaeological study project delivery fact finding; project delivery approach evaluation and development of project staffing and controls plans, and Advisory/Technical Services required to progress the conceptual Design to Basis of design developed by the Houston Waterworks Team.

Scope of Additional Funding: The requested additional appropriation will be utilized to perform basic and additional services as defined by individual work orders. This work was envisioned by the original contract awarded and is consistent with what was briefed to the TTI on February 13, 2017. With the supplemental funding, the Project Advisor/Technical Consultant will perform services to support management and quality assurance of the preliminary services component 2, final design services and to provide field engineering and other associated services for acceptance of the construction facilities for Early Work Packages, which was awarded to Houston Waterworks Team.

The project milestones are described below:

- Component 1-Preliminary Services: February 2016 – September 2016 Early Work Packages: January 2017 – March 2018
- Component 2-Preliminary Services: October 2016 – March 2018
- Guaranteed Maximum Price (GMP) Amendment: March 2018
- Phase I Completion (80 MGD): August 2021
- Phase II Completion (320 MGD): June 2024

The total cost of this additional appropriation is \$18,648,174.00 to be appropriated as follows: \$17,473,564.00 for contract services, and \$1,174,610.00 per CIP cost recovery:

- City of Houston Contributes \$2,983,707.84 (16%)
- Water Authorities Contribute \$15,664,466.16 (84%)

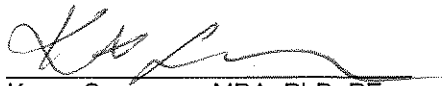
Pay or Play Program: The proposed contract requires compliance with the City's "Pay or Play" ordinance regarding health benefits for employees of City contractors. In this case, the consultant provides health benefits for eligible employees in compliance with City policy.

M/WBE Information: The M/WBE goal for the project is set at 24%. The original contract amount totals \$13,686,667.00. The consultant has been paid \$10,865,308.03(79.38%) to date. Of this amount \$2,674,417.00(24.61%) has been paid to M/WBE sub-consultants to date. Assuming approval of the requested additional appropriation, the contract amount will increase to \$31,160,231.00. The Engineer proposes the following plan to meet the M/WBE goal.

Name of Firms	Work Description	Amount	% of Contract
Paid Prior M/WBE Commitment	Various Services	\$2,674,417.00	8.58%
Unpaid Prior M/WBE Commitment	Various Services	\$966,295.00	3.11%
Fivengineering, LLC, DBA 5engineering	Engineering Services	\$100,000.00	0.32%
Aviles Engineering Corporation	Geotechnical Services	\$250,000.00	0.80%
EJES Incorporated	Engineering Services	\$505,000.00	1.62%
Gunda Corporation, LLC	Engineering Services	\$85,000.00	0.27%
Gupta & Associates, Inc.	Engineering Services	\$580,000.00	1.86%
Hunt & Hunt Engineering Corporation	Engineering Services	\$150,000.00	0.48%
HVJ Associates, Inc.	Testing and Laboratory Services	\$250,000.00	0.80%
Kuo & Associates, Inc.	Engineering Services	\$400,000.00	1.28%
RPH Consulting Group, LLC, DBA RPH	Management Consulting Services	\$1,550,000.00	4.98%
SES Horizon Consulting Engineers, Inc.	Engineering Services	\$200,000.00	0.64%
Strong Strategies, LLC	Public Relation Consulting Services	\$400,000.00	1.28%
United Engineers, Inc.	Engineering Services	\$430,000.00	1.38%
M/WBE Firm TBD	Various Services	\$450,000.00	1.45%
	TOTAL	\$8,990,712.00	28.85%

Estimated Fiscal Operating Impact:

No significant Fiscal Operating impact is anticipated as a result of this project.



Karun Sreerama, MBA, PhD, PE
Director
Department of Public Works and Engineering

WBS Number S-000065-0001-3

Prior Council Action:

Ordinance No. 2012-0121, February 8, 2012
Ordinance No. 2013-0155, February 20, 2013
Ordinance No. 2014-0160, February 26, 2014
Ordinance No. 2014-0962, October 22, 2014
Ordinance No. 2016-0342, April 27, 2016

Amount of Funding:

Total cost is \$18,648,174.00.

\$2,983,707.84 transfer from Fund 8434 – NEWPP Expansion – SWIFT into Fund 8506 – PWE-NEWPP Construction Fund and appropriate from Fund 8506 – PWE-NEWPP Construction Fund.

\$15,664,466.16; Appropriate from Fund No. 8505 – Water Authorities Capital Contrib-NEWPP Fund (Fund 8505).

(Original contract appropriation of \$977,500.00 from Water and Sewer System Consolidated Construction Fund No.8500. First amendment and additional appropriation of \$2,541,000.00 from Water and Sewer System Consolidated Construction Fund No. 8500. Second amendment and additional appropriation of \$1, 100,000.00 from Water and Sewer System Consolidated Construction Fund No. 8500. Third additional appropriation of \$5,500,000.00 from Water and Sewer System Consolidated Construction Fund No. 8500. Fourth additional appropriation of \$824,000.00 out of the Water and Sewer System Consolidated Construction fund 8500 and appropriating \$4,326,000.00 out of the Water Authorities Capital Contribution-NEWPP fund 8505).

Contact Information:

Rajinder Singh - 713-725-9759

ATTACHMENTS:**Description**

Tax Report

SAP Documents

Prior Council Actions

POP

Affidavit of Ownership

Fair Campaign

Form 1295

Form B

LOI

Maps

MWBE Participation

TTI

Vendor Information

Type

Backup Material

Backup Material

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